## **LISTING OF CLAIMS**

1. (Currently Amended) A method of increasing an immune response to an opportunistic infection in an immunocompromised subject comprising

selecting an immunocompromised subject infected with a secondary infection, wherein the immunocompromised subject is immunocompromised as a result of an infection with human immunodeficiency virus (HIV) or a simian immunodeficiency virus (SIV), and wherein the secondary infection is infection with a *Leishmania*;

administering to the immunocompromised subject infected with the secondary infection a therapeutically effective amount of an oligodeoxynucleotide comprising the nucleic acid sequence set forth as SEQ ID NO: 176, an oligodeoxynucleotide comprising the nucleic acid sequence set forth as SEQ ID NO: 177 and an oligodeoxynucleotide comprising the nucleic acid sequence set forth as SEQ ID NO: 178an immunostimulatory D oligodeoxynucleotide, wherein the D oligodeoxynucleotide is at least 18 nucleotides to about 30 nucleotides in length and comprises a sequence represented by the following formula:

 $5' X_1 X_2 X_3 Pu_1 Py_2 CpG Pu_3 Py_4 X_4 X_5 X_6 (W)_M (G)_N - 3' (SEQ ID NO : 22)$ 

wherein the central CpG motif is unmethylated, Pu is a purine nucleotide, Py is a pyrimidine nucleotide, X and W are any nucleotide, M is any integer from 0 to 10, and N is any integer from 4 to 10; and

assessing the immune response to the *Leishmania* in the subject; thereby increasing the response to the *Leishmania* in the immunocompromised subject.

- 2-3. (Canceled)
- 4. (Previously Presented) The method of claim 1, wherein the human immunodeficiency virus is HIV-1.
- 5. (Previously Presented) The method of claim 1, wherein the human immunodeficiency virus is HIV-2.

6. (Previously Presented) The method of claim 1, wherein the subject has acquired immune deficiency syndrome (AIDS).

## 7-8. (Canceled)

- 9. (Currently Amended) The method of claim 1, wherein one or more of nucleotides 3-15 of SEQ ID NO: 176, nucleotides 2-18 of SEQ ID NO: 177, or nucleotides 3-15 of SEQ ID NO: 178 comprise Pu<sub>1</sub> Py<sub>2</sub> CpG Pu<sub>3</sub> Py<sub>4</sub> comprises phosphodiester bases.
- 10. (Currently Amended) The method of claim 1, wherein Pu<sub>1</sub>Py<sub>2</sub>CpGPu<sub>3</sub> Py<sub>4</sub> nucleotides 3-15 of SEQ ID NO: 176, nucleotides 2-18 of SEQ ID NO: 177, and nucleotides 3-15 of SEQ ID NO: 178 are phosphodiester bases.

## 11. (Canceled)

- 12. (Currently Amended) The method of claim 1, wherein  $X_1X_2X_3$  comprises one or more of nucleotides 1 or 2 of SEQ ID NO: 176, nucleotide 1 of SEQ ID NO: 177, or nucleotides 1 or 2 of SEQ ID NO: 178 comprise phosphorothioate bases.
- 13. (Currently Amended) The method of claim 1, wherein  $X_4X_5X_6(W)_M(G)_N$  comprises one or more of nucleotides 16-20 of SEQ ID NO: 176, nucleotides 19 or 20 of SEQ ID NO: 177, or nucleotides 16-20 of SEQ ID NO: 178 comprises phosphorothioate bases.

## 14-17. (Canceled)

- 18. (Previously Presented) The method of claim 4, further comprising administering to the subject a combination of drugs which comprises a highly active anti-retroviral therapy (HAART).
- 19. (Currently Amended) The method of <u>claim 2 claim 1</u>, further comprising administering an anti-retroviral drug.

20. (Previously Presented) The method of claim 19, wherein the anti-retroviral drug comprises 3'-azido-3'dexoy-thymidine (AZT).

21-24. (Canceled)

25. (Currently Amended) A method of increasing an immune response to an opportunistic infection with a pathogen in an immunocompromised subject, comprising

selecting an immunocompromised subject wherein the subject is immunocompromised as a result of an infection with a human immunodeficiency virus; and

administering to the subject a therapeutically effective amount of an oligodeoxynucleotide comprising the nucleic acid sequence set forth as SEQ ID NO: 176, an oligodeoxynucleotide comprising the nucleic acid sequence set forth as SEQ ID NO: 177 and an oligodeoxynucleotide comprising the nucleic acid sequence set forth as SEQ ID NO: 178 immunostimulatory D oligodeoxynucleotide, wherein the D oligodeoxynucleotide is at least 18 nucleotides to about 30 nucleotides in length and comprises a sequence represented by the following formula:

5' X<sub>1</sub>X<sub>2</sub>X<sub>3</sub> Pu<sub>1</sub> Py<sub>2</sub> CpG Pu<sub>2</sub> Py<sub>4</sub> X<sub>4</sub>X<sub>5</sub>X<sub>6</sub>(W)<sub>M</sub> (G)<sub>N</sub>-3' (SEQ ID NO : 22)

wherein the central CpG motif is unmethylated, Pu is a purine nucleotide, Py is a pyrimidine nucleotide, X and W are any nucleotide, M is any integer from 0 to 10, and N is any integer from 4 to 10,

wherein an antigenic epitope of a polypeptide from the pathogen is not administered to the subject,

thereby increasing the response to the opportunistic infection, wherein the pathogen is a Leishmania.

26-39. (Canceled)